

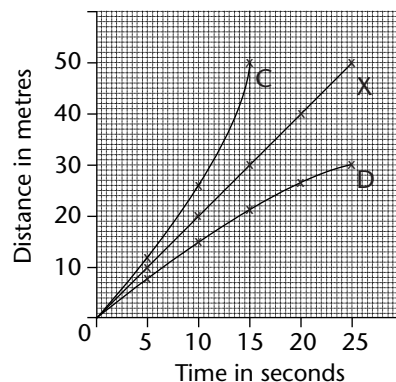
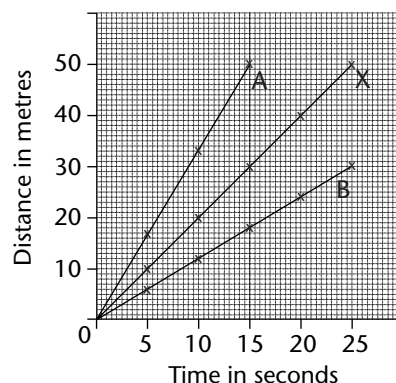
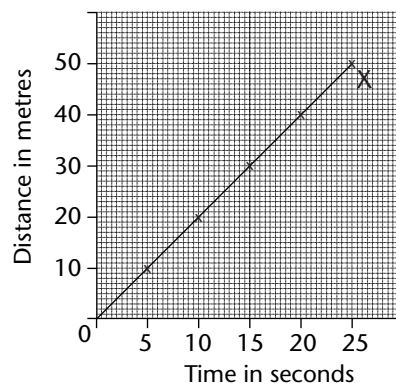
## Straight line graphs

This graph shows that when the time increases by 1 s the distance always increases by 2 m. This means that the **speed** is 2 m/s.

- The steepness of the line is called the **gradient**.
- The straight line shows the object is travelling at a steady speed.

This graph shows two more lines. Line A shows that the distance always increases by 4 m. This means the speed is 4 m/s. Line B shows that when time increases by 1 s, the distance always increases by 1.3 m. So the speed is 1.3 m/s.

- A and B show the objects are travelling at a steady speed.
- A has a steeper gradient than X and B so the speed is faster.
- B has a flatter gradient than X and A so the speed is slower.



## Curved line graphs

- The curved lines show that the speed of the object is changing all the time.
- Line C shows the gradient getting steeper all the time so the object is speeding up more and more. Every second it travels more distance than the second before.
- Line D shows the gradient is getting less steep all the time so the object is slowing down more and more. Every second it travels less distance than the second before.

## Graph shapes

It is useful to be able to look at the shape of any line and know at a glance what is happening to the dependent variable as the independent variable goes up in regular steps.

- A** As time increases, distance increases so object is speeding up more and more.
- B** As time increases, speed decreases so object is slowing down at a steady speed.
- C** As volume increases, pressure decreases quickly at first and more slowly later.

